

REMARKS

This Amendment incorporates Examiner feedback received in the interview conducted May 17, 2011. Applicants have amended claims 1, 44 and 45 and added new claims 46-49 herein. Support for the Amendments and the new claims may be found at least at FIG. 7 and paragraphs [0022] and [0038] – [0041] and therefore no new matter has been added.

The Final Office Action mailed August 4, 2011 noted that claims 1-3, 5-12, 44 and 45 were pending in the application; provisionally rejected claim 1 under obviousness-type double patenting; and rejected claims 1-3, 5-12, 44 and 45 under 35 U.S.C. § 103(a). In rejecting the claims, the Office Action cited the following references: U.S. Patents 5,768,526 to Fawcett, 6,314,468 to Murphy et al., and 7,209,571 to Davis et al.; and U.S. Patent Application Publications 2003/0081791 by Erickson et al. and 2003/0217165 by Buch et al. Claims 46-49 are added herein. Thus, claims 1-3, 5-12 and 44-49 remain pending and under consideration. The rejections are traversed below.

Double Patenting

Claim 1 stands provisionally rejected under the judicially created doctrine of obviousness-type double patenting in view of claim 17 of co-pending Application No. 11/980,642, as set forth in the Office Action at page 4, item 12.

Since the claims of 11/980,642 have not yet been issued as a patent, and since the claims of this application have not yet been indicated as allowable, it is believed that any submission of a Terminal Disclaimer or arguments as to the non-obvious nature of the claims would be premature. MPEP 804.(I)(B). As such, it is respectfully requested that the Applicants be allowed to address any obviousness-type double patenting issues remaining once the rejection of the claims under 35 U.S.C. § 103 is resolved.

Rejections under 35 U.S.C. § 103(a)

In items 12-18 on pages 7-12, the Office Action rejected claims 1, 2, 5, 11, 44 and 45 under 35 U.S.C. § 103(a) as unpatentable over Fawcett in view of Murphy et al. As discussed below, it is submitted that Fawcett and Murphy et al., taken alone or in combination, do not teach all of the features of the rejected claims as amended.

For example, amended claim 1 recites

wherein the metadata-related information comprises values obtained by substituting the selected metadata fragment data into a unidirectional function,

the method of applying which function varies depending on the data format type indicated in the header

(last 3 lines).

In rejecting claim 1, the Office Action acknowledged that Fawcett does not disclose a “unidirectional function varies depending on the data format type indicated in the header (page 7, last line through page 8, line 3). Instead, the Office Action alleged that column 5, lines 13-14, column 5 lines 54-62, column 15, lines 53-67 and column 18, lines 57-67 of Murphy et al. teach such a feature because they disclose “a header comprises object identifiers[, and the] object identifiers are used in the data transmission to identify a type of message being transmitted, encryption techniques used for encrypting the transmitted message, and hash algorithms used for message digests” (Office Action, page 8, lines 3-11).

Applicant respectfully submits that the cited portions of Murphy et al. fail to disclose this feature of amended claim 1.

Murphy et al. discloses only that the hash algorithm is identified in the header. For example, column 5, lines 54-57 states that object identifiers “are used in message transmission, for example, to identify ... hash algorithms used for message digests.” Column 19, line 21 through column 20, line 65 describes “an exemplary method for parsing an EDI message.” In particular, column 20, lines 15-16 state that “[s]tep 1092 then reads the next LL bytes, which are an OID of a hash algorithm.” Step 1092 thus reads the identifier of the hash algorithm from the header. Nothing cited or found in Murphy et al. discloses that a hash algorithm “varies depending on the data format type indicated in the header” as recited by claim 1. In fact, all of the embodiments described in Murphy et al. use the same hash algorithm, SHA1 (see column 12, lines 52-54; column 13, line 4; column 14, lines 7-9; and column 20, lines 16-17).

Furthermore, nothing cited or found in Murphy et al. discloses that once the hash algorithm is identified, the method of applying the hash function varies at all and thus, fails to disclose “method of applying [the] function varies depending on the data format type indicated in the header” as recited by amended claim 1.

In addition, in the Amendments filed November 3, 2010 and May 2, 2011, Applicants asserted that Murphy et al. does not disclose transmitting a container. In response, the current Office Action alleges at page 3, item 6 that Murphy et al. describes a container because Murphy et al. describes an APDU packet that holds data and because an APDU and a container both have the same functionality because both “hold data.” Applicants disagree, noting that an APDU

packet cannot *reasonably* be relied upon to suggest a "container," as recited in claim 1, merely based on the rationale that both an APDU packet and a container hold data.

Furthermore, Applicants submit that one skilled in the art at the time of the invention would not have understood an APDU packet to be synonymous with a container, particularly in light of Applicant's specification. For example, the present application states in part:

Because the size of metadata contained in a metadata container or a body of an SOAP message can be much larger than the size of a transmission packet, conventional transmission-level authentication can help reduce a system's load, for example, because of the reduced data transmissions or because a security channel may not be necessary. However, considering that the size of a metadata container-level packet is larger than the size of a conventional transmission-level packet, the present invention reduces the number of packets to be transmitted, thus simplifying a system (paragraph [0065]).

Thus, the preceding text clarifies at least one difference between a packet and a container as claimed, and a corresponding benefit resulting from that difference, i.e., that "the size of metadata contained in a metadata container or a body of an SOAP message can be much larger than the size of a transmission packet." It is submitted therefore, that the Office Action cannot reasonably rely on Murphy's packet to suggest the container recited in claim 1, irrespective of any other alleged similarities between the two.

In response, the Advisory Action states in part:

The examiner notes, applicant's argument regarding "the size of metadata contained in a metadata container can be much larger than the size of a transmission packet", has no merit since the alleged limitation has not been recited into the claim. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

Applicants respectfully disagree. With respect to claim interpretation MPEP §2111 states in part:

the PTO applies to verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in applicant's specification.). (Citing *In re Morris*, 127 F.3d 1048, 1054-55 (Fed. Cir. 1997), internal quotations omitted).

Applicants submit that neither the Final Office Action nor the Advisory Action provide any evidence that one skilled in the art at the time of the invention would have confused a “packet,” with a “container,” even absent guidance from the present application.

Absent such evidence, the Office’s interpretation of an APDU packet as a container is unreasonable. Claim 1 therefore patentably distinguishes over Fawcett in view of Murphy et al. for at least the preceding reasons.

Claims 2, 5 and 11 depend from claim 1 and therefore, patentably distinguish over Fawcett in view of Murphy et al. for at least the same reasons as discussed above with respect to claim 1.

Claim 44 has been amended to recite

wherein the method of applying the unidirectional function varies depending on the data format type indicated in the header; and

receiving the metadata container in a metadata receiving client, the client identifying a format of the metadata fragment data using the data format information in the header and using the identified format to determine whether an authentication signature is valid based upon the selected metadata fragment data and the metadata digest information

and therefore, patentably distinguishes over Fawcett in view of Murphy et al.

Claim 45 has been amended to recite

generating metadata container-level authentication message digest information by substituting the selected metadata fragment data into a unidirectional function, wherein the method of applying the unidirectional function varies depending on the data format type indicated in the header

and therefore, patentably distinguishes over Fawcett in view of Murphy et al.

In addition, claim 45 recites “the data format information is used to determine whether the generated metadata digest information is valid” (last 2 lines). The Office Action acknowledged that Fawcett does not disclose this feature (page 11, lines 8-11). To compensate for this deficiency, the Office Action alleged that column 5, lines 13-14, column 5 lines 54-62, column 16, lines 15-19, column 17, lines 31-38 and column 18, lines 28-43 of Murphy et al. teach this feature because they disclose “a header comprises object identifiers[, and the] object identifiers are used in the data transmission to identify a type of message being transmitted, encryption techniques used for encrypting the transmitted message, and hash algorithms used for message digests” (Office Action, page 11, lines 11-20). However, as discussed above with respect to claim 1, nothing cited or found in Murphy et al. discloses that the hash algorithm varies depending on the data format type information in the header. Applicant submits that the presence of separate identifiers for the type of message and the hash algorithm in the message

header is not enough to teach or suggest that “the data format information is used to determine whether the generated metadata digest information is valid” as recited by claim 45.

The Office Action further cites column 21, lines 33-48 of Murphy et al. without specifying what features are allegedly disclosed in that portion of Murphy et al. (Office Action, page 11, line 20). However, the cited portion of Murphy et al. merely describes the process of comparing locally computed message digests to a remote message digest, but does not disclose that the type of message being transmitted is used in this process. Applicant submits that this process of comparing message digests does not teach or suggest that “the data format information is used to determine whether the generated metadata digest information is valid” as recited by claim 45. Applicant submits that therefore, claim 45 patentably distinguishes over Fawcett in view of Murphy et al. for at least this reason.

In item 19-20 on page 12, the Office Action rejected claim 3 under 35 U.S.C. § 103(a) as unpatentable over Fawcett in view of Murphy et al. and further in view of Erickson et al. It is noted that claim 3 depends from claim 1 and nothing has been cited or found in Erickson et al. suggesting modification of Fawcett and Murphy et al. to overcome the deficiencies discussed above with respect to claim 1. Therefore, it is submitted that claim 3 patentably distinguishes over Fawcett in view of Murphy et al. and further in view of Erickson et al. for at least the reasons discussed above with respect to claim 1.

In items 21-23 on page 13, the Office Action rejected claims 6 and 7 under 35 U.S.C. § 103(a) as unpatentable Fawcett in view of Murphy et al. and further in view of Davis et al.

It is noted that claims 6 and 7 depend from claim 1 and nothing has been cited or found in Davis et al. suggesting modification of Fawcett and Murphy et al. to overcome the deficiencies discussed above with respect to claim 1. Therefore, it is submitted that claims 6 and 7 patentably distinguish over Fawcett in view of Murphy et al. and further in view of Davis et al. for at least the reasons discussed above with respect to claim 1.

In items 24-28 on pages 13-15, the Office Action rejected claims 8-10 and 12 under 35 U.S.C. § 103(a) as unpatentable Fawcett in view of Murphy et al. and further in view of Buch et al. It is noted that claims 8-10 and 12 depend from claim 1 and nothing has been cited or found in Buch et al. suggesting modification of Fawcett and Murphy et al. to overcome the deficiencies discussed above with respect to claim 1. Therefore, it is submitted that claims 8-10 and 12 patentably distinguish over Fawcett in view of Murphy et al. and further in view of Buch et al. for at least the reasons discussed above with respect to claim 1.

Insufficient Reason to Combine Fawcett and Murphy Articulated

Applicant respectfully submits that the rejections fail to establish a prima facie case of obviousness. To establish a prima facie case of obviousness: 1) there must be some suggestion or reason to combine the references, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art; 2) there must be a reasonable expectation of success; and 3) the references must either teach or suggest all the claim limitations or the Office must provide a rationale as to why the differences between the claimed invention and the prior art are obvious. MPEP 2141.

Here, no persuasive citation to the prior art has been offered as providing a suggestion or reason to modify Fawcett based Murphy, nor does the Office Action provide evidence demonstrating an implicit reason to modify the documents. In *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 USPQ2d 1385, 127 SCt 1727 (2007), the U.S. Supreme Court held that in determining obviousness, it is necessary “to determine whether there was an apparent reason to combine the known elements in the fashion claimed” *KSR*, slip op. 14, 82 USPQ2d at 1396.

Further, “there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR* at 1396, quoting *In re Kahn*. With respect to the rejection of claim 1, for example, the reasoning provided in the Office Action for combining Fawcett and Murphy states:

Therefore it would have been obvious to a person skilled in the art at the time the invention was made to have included in Fawcett the feature of Murphy as discussed above for managing secure transmission of electronic data in EDI format between network entities over dedicated circuits or WANS (column 4, lines 55-58).

Applicant asserts that the cited rationale for combining Fawcett and Murphy is merely a conclusion and therefore fails to meet the standard articulated by the Supreme Court in *KSR International Co. v. Teleflex Inc.* In fact, the Office appears to have performed a search to find a random patent publication that describes “a header including data format information,” without making any attempt to demonstrate that Murphy is relevant to either Fawcett, or to the problems that the presently claimed invention seeks to overcome.

The Office Action further states that the reason for combining Murphy with Fawcett is that a need exists “for managing secure transmission of electronic data in EDI format between network entities over dedicated circuits or WANS.” Fawcett, however, is directed to a method and apparatus for validating data packets *in a paging system*.

The Office Action therefore fails to establish how “secure transmission of electronic data in EDI format,” as described in Murphy, is even relevant to the disclosure of Fawcett, given that Fawcett is directed towards a method of validating communications between a transmitting component and a receiving component of a paging system. For example, the National Institute of Standards and Technology in a 1996 publication defines electronic data interchange as “the computer-to-computer interchange of strictly formatted messages that represent documents other than monetary instruments.” The Office Action, however, provides no evidence as to why EDI as defined above is even relevant to Fawcett’s paging system.

As another example, the portion of Murphy cited in the Office Action further states that its objective of managing secure transmission of electronic data in EDI format is accomplished “using TCP/IP for connectivity and SSL3 for security in transmission.” The current rejection is deficient, however, because the Office Action fails to demonstrate using TCP/IP and SSL3 is even relevant to Fawcett’s paging system, which in contrast is implemented over the public switched telephone network (PSTN) (see, e.g., column 2, lines 53-62).

In view of all of the above, Applicant respectfully asserts that the reason provided in the Office Action for combining Murphy with Fawcett is merely a generalized conclusion and is therefore insufficient to meet the burden imposed by KSR. Absent a particularized reason, taking into account the problem that the presently claimed embodiment seeks to address, or a similarly relevant problem, the Examiner’s rationale appears to be taken from Applicant’s own application, and thus amounts to an improper hindsight reconstruction of the present invention.

Thus, the Office fails to demonstrate that one skilled in the art would have had a reason to combine the teachings of Fawcett with those of Murphy, and the 103(a) rejection is improper.

New Claims

New dependent claims 46-49, each having additional patentable features, have been added. Consideration of the new claims is respectfully requested.

Summary

In accordance with the foregoing it is submitted that all outstanding rejections have been overcome and/or rendered moot, and further, that all outstanding claims have been patentably distinguished over the cited prior art. Thus, there being no further outstanding objections or

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rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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